

VII. COMPLIANCE AND ENFORCEMENT HISTORY

To date, EPA has focused much of its attention on measuring compliance with specific environmental statutes. This approach allows the Agency to track compliance with the Clean Air Act, the Resource Conservation and Recovery Act, the Clean Water Act, and other environmental statutes. Within the last several years, the Agency has begun to supplement single-media compliance indicators with facility-specific, multimedia indicators of compliance. In doing so, EPA is in a better position to track compliance with all statutes at the facility level, and within specific industrial sectors.

A major step in building the capacity to compile multimedia data for industrial sectors was the creation of EPA's Integrated Data for Enforcement Analysis (IDEA) system. IDEA has the capacity to "read into" the Agency's single-media databases, extract compliance records, and match the records to individual facilities. The IDEA system can match Air, Water, Waste, Toxics/Pesticides/EPCRA, TRI, and Enforcement Docket records for a given facility, and generate a list of historical permit, inspection, and enforcement activity. IDEA also has the capability to analyze data by geographic area and corporate holder. As the capacity to generate multimedia compliance data improves, EPA will make available more in-depth compliance and enforcement information. Additionally, sector-specific measures of success for compliance assistance efforts are under development.

VII.A. Transportation Equipment Cleaning Industry Compliance History

An enforcement and compliance matrix based on information from the IDEA (Integrated Data for Enforcement Analysis) data base is not available for the transportation equipment cleaning industry. Information from the IDEA system is sorted by industry using SIC codes. Because there are no SIC codes that apply solely to transportation equipment cleaning, compliance and enforcement information specific to the industry cannot be obtained from the IDEA system.

VII.B. Review of Major Legal Actions

This section provides summary information about major cases that have affected this sector, and a list of Supplementary Environmental Projects (SEPs). SEPs are compliance agreements that reduce a facility's stipulated penalty in return for an environmental project that exceeds the value of the reduction. Often, these projects fund pollution prevention activities that can significantly reduce the future pollutant loadings of a facility.

VII.B.1. Review of Major Cases

Historically, OECA's Office of Enforcement Capacity and Outreach does not regularly compile information related to major cases and pending litigation within an industry sector. The staff are willing to pass along such information to Agency staff as requests are made. In addition, summaries of completed enforcement actions are published each fiscal year in the *Enforcement Accomplishments Report*. To date these summaries are not organized by industry sector. (Contact: Office of Enforcement Capacity and Outreach, 202-260-4140)

VII.B.2. Supplementary Environmental Projects

Supplemental environmental projects (SEPs) are an enforcement option that requires the non-compliant facility to complete specific projects. Regional summaries of SEPs undertaken in the 1993 and 1994 federal fiscal years were reviewed. No SEPs were identified that involved transportation equipment cleaning facilities during this period. However, an injunctive relief action was identified which was carried out following a violation of the CWA at the Union Tank Car Co. in Louisiana. The specifics of the violation were not provided by the reporting Region. The company was fined \$350,000 and was required to construct a pipeline from the facility to the local POTW to stop the unpermitted discharge of wastewater from the facility's rail car cleaning operations. It was also required that the pipeline be constructed to allow local residents to tie-in the system. No reduction in the initial cash penalty was granted for the implementation of the project.

VIII. COMPLIANCE ASSURANCE ACTIVITIES AND INITIATIVES

This section highlights the activities undertaken by this industry sector and public agencies to voluntarily improve the sector's environmental performance. These activities include those independently initiated by industrial trade associations. In this section, the notebook also contains a listing and description of national and regional trade associations.

VIII.A. Sector-related Environmental Programs and Activities

Environmental compliance assurance activities by both government and industry have been extremely limited for the transportation equipment cleaning industry. In part, this is due to the lack of environmental regulations specific to the industry at this time. While most facilities must obtain and meet the requirements of NPDES permits for wastewater and storm water discharge, and must comply with RCRA hazardous waste requirements, the wastes generated and the methods of handling and disposing of these wastes are not unique to the industry. Compliance assurance activities specific to the cleaning of transportation equipment, therefore, may not be an industry priority. Another possible factor limiting industry specific compliance assurance activities is that many transportation equipment cleaning facilities are a relatively small part of larger manufacturing, maintenance, repair, and depot/terminal facilities. The primary focus of industry and government compliance assurance activities would naturally focus on the various other environmental regulations that cover these facilities.

EPA activities to date have primarily been aimed at assessing the environmental effects and collecting data for the purpose of developing regulations for controlling pollutant discharges in wastewater. As a result, compliance assistance activities specific to the transportation equipment cleaning industry have been limited.

Waste Minimization Assessment for a Manufacturer of Rebuilt Railway Cars and Components

The U.S. EPA funded a pilot project to assess small- and medium-size manufacturers who want to minimize their generation of hazardous waste but lack the expertise to do so. Waste Minimization Assessment Centers (WMACs) were established at selected universities and procedures were adapted from the EPA *Waste Minimization Opportunity Assessment Manual*. The WMAC team at the University of Tennessee inspected a plant that rebuilds approximately 2,000 railway cars each year and that refurbishes wheel assemblies and air brake systems. The team issued a report and made a number of recommendations for minimizing wastes.

VIII.B. EPA Voluntary Programs*33/50 Program*

The "33/50 Program" is EPA's voluntary program to reduce toxic chemical releases of eighteen chemicals from manufacturing facilities. Participating companies pledge to reduce their toxic chemical releases and transfers by 33 percent as of 1992 and by 50 percent as of 1995. Certificates of Appreciation have been given out to participants meeting their 1992 goals. The list of chemicals includes seventeen high-use chemicals reported in the Toxics Release Inventory. (Contact: Mike Burns 202-260-6394 or the 33/50 Program 202-260-6907)

Environmental Leadership Program

The Environmental Leadership Program (ELP) is a national initiative piloted by EPA and state agencies in which facilities have volunteered to demonstrate innovative approaches to environmental management and compliance. EPA has selected 12 pilot projects at industrial facilities and federal installations which will demonstrate the principles of the ELP program. These principles include: environmental management systems, multimedia compliance assurance, third-party verification of compliance, public measures of accountability, community involvement, and mentoring programs. In return for participating, pilot participants receive public recognition and are given a period of time to correct any violations discovered during these experimental projects. Forty proposals were received from companies, trade associations, and federal facilities representing many manufacturing and service sectors. (Contact: Tai-ming Chang, ELP Director, 202-564-5081 or Robert Fentress 202-564-7023)

Project XL

Project XL was initiated in March 1995 as a part of President Clinton's *Reinventing Environmental Regulation* initiative. The projects seek to achieve cost effective environmental benefits by allowing participants to replace or modify existing regulatory requirements on the condition that they produce greater environmental benefits. EPA and program participants will negotiate and sign a Final Project Agreement, detailing specific objectives that the regulated entity shall satisfy. In exchange, EPA will allow the participant a certain degree of regulatory flexibility and may seek changes in underlying regulations or statutes. Participants are encouraged to seek stakeholder support from local governments, businesses, and environmental groups. EPA hopes to implement fifty pilot

projects in four categories including facilities, sectors, communities, and government agencies regulated by EPA. Applications will be accepted on a rolling basis and projects will move to implementation within six months of their selection. For additional information regarding XL Projects, including application procedures and criteria, see the May 23, 1995 Federal Register Notice, or contact Jon Kessler at EPA's Office of Policy Analysis (202) 260-4034.

Green Lights Program

EPA's Green Lights program was initiated in 1991 and has the goal of preventing pollution by encouraging U.S. institutions to use energy-efficient lighting technologies. The program has over 1,500 participants which include major corporations; small and medium sized businesses; federal, state and local governments; non-profit groups; schools; universities; and health care facilities. Each participant is required to survey their facilities and upgrade lighting wherever it is profitable. EPA provides technical assistance to the participants through a decision support software package, workshops and manuals, and a financing registry. EPA's Office of Air and Radiation is responsible for operating the Green Lights Program. (Contact: Maria Tikoff at 202-233-9178 or the Green Light/Energy Star Hotline at 202-775-6650)

WasteWi\$e Program

The WasteWi\$e Program was started in 1994 by EPA's Office of Solid Waste and Emergency Response. The program is aimed at reducing municipal solid wastes by promoting waste minimization, recycling collection, and the manufacturing and purchase of recycled products. As of 1994, the program had about 300 companies as members, including a number of major corporations. Members agree to identify and implement actions to reduce their solid wastes and must provide EPA with their waste reduction goals along with yearly progress reports. EPA, in turn, provides technical assistance to member companies and allows the use of the WasteWi\$e logo for promotional purposes. (Contact: Lynda Wynn 202-260-0700 or the WasteWi\$e Hotline at 800-372-9473)

Climate Wise Recognition Program

The Climate Change Action Plan was initiated in response to the U.S. commitment to reduce greenhouse gas emissions in accordance with the Climate Change Convention of the 1990 Earth Summit. As part of the Climate Change Action Plan, the Climate Wise Recognition Program is a partnership initiative run jointly by EPA and the Department of Energy.

The program is designed to reduce greenhouse gas emissions by encouraging reductions across all sectors of the economy, encouraging participation in the full range of Climate Change Action Plan initiatives, and fostering innovation. Participants in the program are required to identify and commit to actions that reduce greenhouse gas emissions. The program, in turn, gives organizations early recognition for their reduction commitments; provides technical assistance through consulting services, workshops, and guides; and provides access to the program's centralized information system. At EPA, the program is operated by the Air and Energy Policy Division within the Office of Policy Planning and Evaluation. (Contact: Pamela Herman 202-260-4407)

NICE³

The U.S. Department of Energy and EPA's Office of Pollution Prevention are jointly administering a grant program called The National Industrial Competitiveness through Energy, Environment, and Economics (NICE³). By providing grants of up to 50 percent of the total project cost, the program encourages industry to reduce industrial waste at its source and become more energy-efficient and cost-competitive through waste minimization efforts. Grants are used by industry to design, test, demonstrate, and assess the feasibility of new processes and/or equipment with the potential to reduce pollution and increase energy efficiency. The program is open to all industries; however, priority is given to proposals from participants in the pulp and paper, chemicals, primary metals, and petroleum and coal products sectors. (Contact: DOE's Golden Field Office, 303-275-4729)

VIII.C. Trade Association/Industry Sponsored Activity

Industry compliance assurance activities have primarily been aimed at the transportation safety requirements of the Department of Transportation, the Occupational Safety and Health Administration, and the U.S. Coast Guard. However, the trade associations anticipate providing increased environmental compliance assistance activities with the development of the wastewater Effluent Guidelines.

VIII.C.1. Environmental Programs

Industry Working Group on Deicing

A deicing working group formed by the American Association of Airport Executives and the Airports Association Council International studied the use of deicing chemicals on aircraft and the feasibility of deicing facilities

away from airport gates and to provide information to both industry members and the federal government on ways in which deicing operations can be improved upon. As part of their investigation, the working group sent out surveys to the major airports to determine which deicing procedures and chemicals are being used by the industry. Some of the survey questions related to environmental effects of deicing and recovery, reuse, and recycling of waste deicer. The results of the survey indicated that a number of air carriers are using alternative chemicals, and have constructed remote deicing facilities with deicer recovery systems. (Contact: David Jeffrey, American Association of Airport Executives, 703-824-0500 ext.136)

Global Environmental Management Initiative

The Global Environmental Management Initiative (GEMI) is made up of a group of leading companies dedicated to fostering environmental excellence by business. GEMI promotes a worldwide business ethic for environmental management and sustainable development to improve the environmental performance of business through example and leadership. In 1994, GEMI's membership consisted of about 30 major corporations.

National Pollution Prevention Roundtable

The National Pollution Prevention Roundtable published *The Pollution Prevention Yellow Pages* in September 1994. It is a compilation of information collected from mail and telephone surveys of state and local government pollution prevention programs. (Contact: Natalie Roy 202-543-7272). State programs listing themselves as having expertise in pollution prevention related to transportation equipment cleaning were not identified in *The Pollution Prevention Yellow Pages*; however, areas of expertise are listed as SIC categories which do not include a specific category for transportation equipment cleaning.

Chemical Manufacturers Association

The **Chemical Manufacturer's Association** funds research on issues of interest to their members particularly in support of their positions on proposed or possible legislation. They recently funded a study to characterize the environmental fate of organochlorine compounds.

Responsible Care® Program

The **Responsible Care® Initiative** of the Chemical Manufacturer's Association requires all members and partners to continuously improve

their health, safety, and environmental performance in a manner that is responsive to the public. Launched in 1988, the Responsible Care® concepts are now being applied in 36 countries around the world. Responsible Care® is a comprehensive, performance-oriented initiative composed of ten progressive Guiding Principles and six board Codes of Management Practices. These Management Practices cover all aspects of the chemical industry's operations, from research to manufacturing, distribution, transportation, sales and marketing, and to downstream users of chemical products. Through Responsible Care®, CMA members and partners gain insight from the public through, among other means, a national Public Advisory Panel and over 250 local Community Advisory Panels. This, coupled with the fact that participation in Responsible Care® is an obligation of membership with the Chemical Manufacturer's Association, make this performance improvement initiative unique. The Synthetic Organic Chemical Manufacturer's Association whose membership consists of smaller batch and custom chemical manufacturers with typically fewer than 50 employees and less than \$50 million in annual sales, encourages its members to achieve continuous performance improvement in their health, safety, and environmental programs through implementation of the chemical industry's Responsible Care® initiative. SOCMA is a partner in Responsible Care®.

ISO 9000

ISO 9000 is a series of international total quality management guidelines. After a successful independent audit of their management plans, firms are qualified to be ISO 9000 registered. In June of 1993, the International Standards Organization created a technical committee to begin work on new standards for environmental management systems. The new standards are called ISO 14000 and are expected to be issued in 1996.

VIII.C.2. Summary of Trade Associations

Truck Transport

1960	National Tank Truck	
	Carriers	
	2200 Mill Rd.	Members: 260
	Alexandria, VA 22314	Staff: 7
	Phone: (703) 838-	Budget: \$1,000,000
		Contact: John Conely
	Fax: (703) 684-5753	

The National Tank Truck Association (NTTC), founded in 1945, represents for hire tank truck carriers of liquid and dry-bulk commodities,

chemicals, food processing commodities, and petroleum and related products. The NTTC provides its members with periodic bulletins on the latest changes in federal, state and local regulations, as well as political and market issues. In addition, the NTTC conducts research and sponsors annual training schools. NTTC publications include the annual *Cargo Tank Hazardous Materials Regulations*, a monthly *Newsletter*, an annual *Hazardous Commodity Handbook*, and an annual *National Tank Truck Directory*, in addition to pamphlets and books. The NTTC holds a general conference each May, a Cargo Tank Maintenance Seminar each October, and special seminars on timely topics. A committee has been formed that will deal specifically with tank cleaning issues.

American Trucking Associations

2200 Mill Rd.
Alexandria, VA
22314
Phone: (703) 838-
1844
Fax: (703) 684-5720

Members: 4100
Staff: 300
Budget: \$35,000,000
Contact: Allen Schaeffer

The American Trucking Associations (ATA), founded in 1933, represents motor carriers, suppliers, state trucking associations, and national conferences of trucking companies. The ATA works to influence the decisions of federal, state, and local government bodies to promote increased efficiency, productivity, and competitiveness in the trucking industries. ATA promotes highway and driver safety, supports highway research projects, and studies technical and regulatory problems of the trucking industry. In addition, the association provides its members with a guide to federal and state regulations and offers comprehensive accounting service for all size carriers. An information center containing numerous ATA and other publications is available to members and others.

Rail Transport

Railway Progress Institute
700 N. Fairfax Street
Alexandria, VA
22314
Phone: (703) 836-
2332
Fax: (703) 548-0058

Members: 150
Staff: 7
Contact: Robert Mathews

Founded in 1908, the Railway Progress Institute (RPI) is comprised of railway and rapid transit rail equipment and supply companies. The RPI promotes the interests of its membership and, the American railroad system in general, before federal agencies and Congress. The RPI publishes an annual report and the bimonthly *Railway Progress News*, a newsletter reporting industry events.

Association of American Railroads

Library Room 5800

50 F Street, NW

Washington, D.C. 20001

Phone: (202) 639-2280

Fax: (202) 639-2986

Members: 110

Staff: 745

Contact: Robert
Fronczak

The Association of American Railroads functions as the coordinating and research agency of the American railway industry. Membership is comprised of the larger, Class I railroads. Focus areas include: railroad operation and maintenance, statistics, medical problems, cooperative advertising and public relations, rates, communication, safety, and testing of railroad equipment. The AAR was founded in 1934 and maintains a library of current and historical volumes and periodicals. The AAR also operates an on-line database of all rail cars, trailers, and containers used in North America called Universal Machine Language Equipment Register. Publications include the quarterly *Official Railway Equipment Register*, the biweekly *Rail News Update*, and the periodically published *Railroad Facts*. The AAR also publishes studies, statistical reports, and general information publications. Because the membership consists of the railroads and not the rail carriers, the environmental focus is primarily aimed at the effects of the railroad ties and contaminated soils on the environment. Tank car and equipment cleaning is of a lesser concern to the membership.

Ship and Barge Transport

American Waterways Operators

1600 Wilson Blvd.

Suite 1000

Arlington, VA 22209

Phone: (703) 841-
9300

Fax: (703) 841-0389

Members: 305

Staff: 25

Budget: \$2,000,000

Contact: Robert O'Niell

Founded in 1944, the American Waterways Operators (AWO) consists of towboat, tugboat, and barge operators, as well as the shipyards that build and repair those vessels. The AWO represents the industry before government bodies. Committees include Inland Dry Sector, Inland Liquid Sector, Coastal Sector, and Harbor Services Sector. In addition, the American Waterways Shipyard Conference (AWSC) was organized within AWO to represent U.S. Second Tier (small and medium sized) commercial

shipyards. Tank barge cleaning issues are handled by the AWSC. The association provides technical assistance in the form of publications and seminars. Most assistance activities are aimed at improving safety in the industry. The AWSC worked with the U.S. Coast Guard to publish *Safety Guidelines for Tank Vessel Cleaning Facilities*, which will be used by the industry and as a guide manual for inspectors. Other publications include an annual report, a biweekly *AWO Letter*, *Action Bulletin* and *Information Bulletin*, and an annual membership directory.

Inland Rivers, Ports and Terminals, Inc.

204 E. High Street

Jefferson City, MO 65101

Phone: (314) 634-2028

Fax: (314) 634-2028

Members: 165

Contact: Kathy Pabst

Founded in 1974, the Inland Rivers, Ports and Terminals, Inc. (IRPT) is a non-profit corporation representing port and terminal owners/operators, port authorities, towing companies, and other river related businesses. The IRPT promotes the growth of inland rivers, ports and terminals commerce through the exchange of information and coordinated action among its members. Activities include the review of impending regulations, dissemination of interpretations of regulations, and periodic meetings which include presentations on issues effecting the industry. Publications include a weekly *News Bulletin*; an annual membership directory; and *Waterways and Transportation Review*, an open forum for articles pertaining to research, opinions, operations, policies, strategies, and methodologies relating to the waterways industry. IRPT assistance to members has not focused on environmental issues, however, more environmental compliance assistance is expected to be provided as it becomes more of a concern to the membership.

Air Transport

American Association of Airport Executives

4212 King Street

Alexandria, VA

22302

Phone: (703) 824-

0500

Fax: (703) 820-1395

Members: 4,000

Staff: 25

Budget: \$4,100,000

Contact: David

Jeffrey

The American Association of Airport Executives (AAAE) is comprised of airport management personnel and representatives of companies serving

the civil airport industry. The AAAE sponsors educational seminars, conducts examinations and maintains a speakers' bureau. Assistance in complying with environmental regulations is provided in the form of regulation interpretations, training seminars, and manuals. Environmental compliance assistance as focused on the storm water rules and has not yet been specific to aircraft cleaning and deicing operations. Publications are the bimonthly *Airport Executive Magazine* and the *Airport Report Newsletter*. Separate yearly conferences are on national airports, legislative issues (semiannual), international facilities, and general annual issues.

Airports Association Council International

1220 19th Street

NW, Suite 200

Washington, D.C. 20036

Phone: (202) 293-8500

Fax: (202) 331-1362

Members: 235

Staff: 20

Contact: Bonnie Wilson

The Airports Association Council International (AACI) is comprised of operators of public airport facilities. The group also includes government bodies that own and operate major airports. The association provides compliance assistance to members through seminars, meetings, conferences, regulation interpretations, and manuals. One day conferences are frequently held on environmental management and auditing techniques. The association's environmental compliance assistance activities have not yet included aircraft cleaning and deicing, but assistance is expected to be offered if rules are put in place. Committees include planning and environmental, safety and security, and U.S. government affairs. Publications are the weekly *Airport Highlights*, the annual *Worldwide Airport Traffic Report*, and the *Airport Environmental Management Handbook*. The AACI holds an annual meeting in September or October.

National Air Transport Association

4226 King Street

Alexandria, VA 22302

Phone: (703) 845-9000

Fax: (703) 845-8176

Members: 1,945

Staff: 20

Contact: Andrew Cebula

The National Air Transport Association (NATA) represents the interests of aviation services companies such as fixed-base operators and on-demand air taxis. NATA provides compliance assistance to members in the form of guidelines, explanations of regulations, and seminars. Most

of NATA's work relates to Federal Aviation Administration regulations, however, environmental services are also provided. Environmental aspects of deicing and aircraft cleaning are not a major focus, because the membership does not include the carrier companies, however, some fixed-based operators carry out deicing operations. Publications include an annual membership directory, an annual report, and the monthly *ATAnews*.

Air Transport Association of America
1709 New York Ave., NW
Washington, D.C. 20006
Phone: (202) 626-4000

Members: 22
Staff: 125
Contact: Donald Minnis

The ATA is comprised of airlines engaged in transporting persons, goods, or mail by aircraft. Departments include government affairs, industry services, and technical services. Publishes annual *Air Transport* as well as fact sheets, press releases, studies, speeches, and references pertaining to air transport. The ATA holds quarterly meetings.

General Transport

Independent Liquid Terminals Association
1133 15th St., NW, Suite 650
Washington, D.C. 20005
Phone: (202) 659-2301
Fax: (202) 466-4166

Members: 82
Staff: 7
Budget: \$600,000
Contact: John Prokop

Independent terminal companies that handle, transfer, and store bulk liquid commodities on a "for hire" basis are members of the Independent Liquid Terminals Association (ILTA). Member operations include deep water and barge terminals for the storage of chemicals, petroleum, fertilizers, and basic bulk liquid food products such as animal fats and vegetable oils, molasses, and spirits. The ILTA advises members on pending regulation and legislation, promotes the exchange of information among members, and investigates opportunities for increased safety and efficiency in handling increasing varieties of liquid products. The ILTA has task forces on Environment, Safety, and Training. Publications include an annual *Directory of Bulk Liquid Terminals and Storage Facilities* and a weekly *ILTA Newsletter* addressing federal and state legislation and regulation. The ILTA has an annual conference/trade show.

Association of Waste Hazardous
Materials Transporters

2200 Mill Rd.

Alexandria, VA
22314

Phone: (703) 838-
1703

Fax: (703) 549-9570

Members: 65

Staff: 2

Contact: Cynthia Hilton

The Association of Waste Hazardous Materials Transporters (AWHMT) is affiliated with the American Trucking Association. It represents companies that transport waste hazardous materials including, PCBs, radiation, and hazardous and industrial wastes, by truck and rail. The Association is a not-for-profit organization that promotes practices and performance standards that minimize risks to the environment, public health and safety; develops educational programs to expand public awareness about the industry; and contributes to the development of effective laws and regulations governing the industry. AWHMT publishes an annual directory of transporters and meets three times per year.

IX. CONTACTS/ACKNOWLEDGMENTS/RESOURCE MATERIALS/BIBLIOGRAPHY

For further information on selected topics within the transportation equipment cleaning industry a list of contacts and publications are provided below:

Contacts^a

Name	Organization	Telephone	Subject
Virginia Lathrop	EPA/OECA	(202) 564-7057	Regulatory requirements and compliance assistance
Gina Matthews	EPA/OW	(202) 260-6036	TECI industry size, distribution, economics, pollutant releases, effluent guidelines, and waste water treatment operations
Ann Codrington	EPA/OSWER	(202) 260-4777	Regulatory requirements (RCRA)
Joseph Delevanko	DOT	(202) 366-4484	Regulatory requirements (SFTA)
John Dickinson	EPA Region IV	(404) 347-7603	Inspector experienced in inspections of rail tank car cleaning facilities
Cynthia Hutchinson	EPA Region VII	(913) 551-7478	Experience in inspections of rail tank car cleaning facilities

OECA: Office of Enforcement and Compliance Assistance

OW: Office of Water

OSWER: Office of Solid Waste and Emergency Response

DOT: Department of Transportation

CWA: Clean Water Act

RCRA: Resource Conservation and Recovery Act

General Industry Profile

1993 Screener Questionnaire of the Transportation Equipment Cleaning Effluent Guidelines, U.S. EPA Office of Water, Engineering and Analysis Division, Washington, D.C., 1994.

Preliminary Data Summary for the Transportation Equipment Cleaning Industry, U.S. EPA, Office of Water Regulations and Standards, September 1989.

Source Assessment: Rail Tank Car, Tank Truck, and Drum Cleaning, State-of-the-Art, Monsanto Research Corp, Dayton, Ohio, prepared for the U.S. EPA Industrial Environmental Research Laboratory, Cincinnati, Ohio, April, 1978.

^a Many of the contacts listed above have provided valuable background information and comments during the development of this document. EPA appreciates this support and acknowledges that the individuals listed do not necessarily endorse all statements made within this notebook.

Waste Minimization Assessment for a Manufacturer of Rebuilt Railway Cars and Components, F. William Kirsch and Gwen P. Looby, University City Science Center, Philadelphia, PA and U.S. EPA Risk Reduction Engineering Laboratory, Cincinnati, Ohio, July, 1991. EPA/600/M-91/017.

Process Descriptions and Chemical Use Profiles

Report of the American Association of Airport Executives - AD HOC Working Group on Deicing, American Association of Airport Executives, Alexandria, Virginia, 1993. (Contact: David Jeffrey, American Association of Airport Executives, 703-824-0500 ext.136)

Safety Guidelines for Tank Vessel Cleaning Facilities, first edition, American Waterways Shipyard Conference, Arlington, Virginia, June, 1992. (Contact: Robert O'Neill, American Waterways Shipyard Operators, 703-841-9300)

Regulatory Profile

Sustainable Environmental Law, Environmental Law Institute, West Publishing Co., St. Paul, Minn., 1993.

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